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REPRODUCTIONS OF A SERIES OF LITHO-
GRAPHS OF MUNITION WORKS MADE BY HIM
WITH THE PERMISSION AND AUTHORITY OF
THE UNITED STATES GOVERNMENT, WITH
NOTES AND AN INTRODUCTION BY THE ARTIST



PHILADELPHIA AND LONDON
J. B. LIPPINCOTT COMPANY

1918

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INTRODUCTION—MY LITHOGRAPHS OF WAR WORK

I HAVE come back from the Jaws of Death—back from the Mouth of Hell—to my own land, my own people. I have never passed such an exciting year in my life—and beside, I hope I have been able to accomplish something in my work which shall show one phase of the Wonder of the World's Work of to-day. I was honoured a year ago by being permitted by the Rt. Hon. David Lloyd George, then Minister of Munitions in England, to make drawings in the various factories and works and shipyards which were engaged in war work in that country—and the records of what I saw were published as lithographs of War Work in England and in a previous volume in this series. Now, though I do not believe in war, I do not see why some pictorial record of what is being done to carry on the war should not be made—made from an artist's standpoint—for we are in it—being in the world—but I am not of it.

When my work—or as much of it as I was allowed to do—was finished and exhibited and published—I was invited by the French Minister of Munitions, M. Albert Thomas, to visit the front and make studies of similar subjects in France, but—owing to a combination of unfortunate circumstances—though I went to France twice during the Summer of this year, I was unable to get anything of importance. This was my fault, or my misfortune—I failed—and the memory of my failure will haunt me, and be a cause of regret to me, all my life—unless I am able to wipe out my failure—in another visit to France. But though I failed to make any drawings—any records of the subjects I was so freely shown—I was shown on my two visits many subjects, which were supremely interesting, could I have but drawn them—had I been able to do so they would have been worth doing. Not only was I taken to the front, which was not the part I saw, picturesque, but I was also taken to see some of those parts of France which have been fought over, some of the towns which have been destroyed, some of the land which is desolate, and I have also seen some of the French munition factories. Then I came home, for I believe the place for an American at the present time is

at home. And on my arrival I was authorized to make records by our Government similar to those I had made in England, and had failed to make in France—what I have done in the United States is shown in this book.

I have had more opportunities of seeing what is being done in war work in England, France and the United States than any one else—and in a fashion that no one else has been permitted to see. I have seen war in the making. Yet I did not do these drawings with any idea of helping to win the war, but because for years I have been at work—from my earliest drawings—trying to record The Wonder of Work, and work never was so wonderful as it is to-day. And never had any one such help—such aid, such encouragement given him to record its wonder—and by the Governments of the three great countries which are engaged in “this incredibly horrible, absolutely unnecessary war, easily avoided war,” to quote a British Statesman.

Not only have I seen the Wonder of Work in these three lands—but before the war I saw it in Belgium, Germany and Italy. I have drawn it everywhere, save in Luxembourg, and there, too, I have seen it—but made no drawings—for it was so easy to get to that land—and so that country was put off for a more convenient season—a season I fear which will never come again. I am not going to make comparisons—but I am going to say that the Wonder of Work is more wonderful in the United States than anywhere else in the world to-day. True, we are not working with that unbelievable energy which the French and English—yes, the English—have put at last into their work—but we do so much more—with so much less—appearance of work—we are working for the Allies—but they are not working for us. And we are doing for them what they cannot do for themselves. In Europe the war worker works all day and every day in the year. Here most of the great industrial works have only added war work to their peace work, in Europe scarce anything else but war work is being done.

And also in America the women have not to any extent gone into the factories, mills and shipyards of the country. And I hope they never will. I have never seen a woman shell maker here, yet I know of factories in France and England where there are scarce any work

people, save women, one where there are ten thousand women. Here they are only making fuses and doing other light work, but I have not seen a woman at a lathe as I have seen them in France and England. I have never seen a woman ship builder here—yet I have seen women in shipyards abroad doing work that men would have grumbled at when put to it—because it was thought hard work—before the war.

And I am glad that our women are not forced to undertake such work, and hope they never may be, for I have seen the black side of this work, which already has led to strikes and labour troubles in Europe—and when the war is over, will lead to greater trouble—for the Captains of Industry in Europe tell me that women run machines better than men—they devote themselves to the machine—never try to improve it—to make changes in it—only to keep it going and in good order, while the man is always trying to improve it, to make it do more, so that he can do less. “Stick matches in it,” one manager said—while the women just run the machines as they are shown how.

But making shells is more interesting than washing dishes, or waving flags and marching in parades—and more exciting—but there will be an end to that some day; and the lathes—which have been turned to war work—will be turned back to peace work—and the question is, will the women go back to their dishes?—and if they do not there will be more trouble. I have seen a women’s strike—or a little of it—for with the manager who was showing me around, I left at once. It was not an orderly, peaceful, or womanly strike. That shop was no place for me. Those women were not lady-like.

But just as the greatest human energy has been given to war work, given to make things to explode, to kill, to destroy; so the greatest machines have been turned to do this work with the greatest skill and accuracy and the greatest speed—the workers are but a necessary detail—and it is the working of the great machinery in the great mills which I find so inspiring—so impressive—for the mills are shrines of war. The mills are the modern temples and in them do the people worship. And if only the engines turned out were engines of peace—how much better would the world be—but everything made in a war factory is made to destroy and to be destroyed. But one must not think of that, for if one did the war would stop, and not every one

wants it to stop—or it would stop to-day—a universal demand for peace would make peace,—really would have prevented war. But war work in America is the most wonderful work in the world and that is the reason why I have drawn some of the work I have seen—seen in these endless looms of time—where history is being woven. The attitude of the workman toward the artist is curious; in France he understands, in England he looks down on you as a poor thing who has to work—in America you are regarded as a fellow workman, as an artist is!

I want to thank the Secretaries of the Navy and of War, Messrs. Daniels and Baker, Mr. Creel and the other members of the Board and staff of the Committee on Public Information, and the various heads of the various sub-departments of the Army and Navy, who stood my pestering and querying and obtained for me permission to visit every industrial establishment I wanted. In every plant, camp, yard, works, field, which I wanted to work in—I was taken to, and treated with courtesy. I should like to thank and mention by name the various officials, government and civilian, who gave me every facility to see and to draw everything I wished in the War Works they directed—but we are at war—and I am not permitted to say where these drawings were made, and if I mentioned the names of some of the directors of these works the places in which I made the drawings would be known. As it is, I imagine many of them are pretty well known already.

Finally I wish to thank my life-long friend, Dr. F. P. Keppel—who suggested, directed, arranged, calmed down and cheered up all those with whom I was brought in most interesting contact. He knows what he did and I know—and I shall not forget.

PHILADELPHIA, THANKSGIVING DAY, 1917

JOSEPH PENNELL

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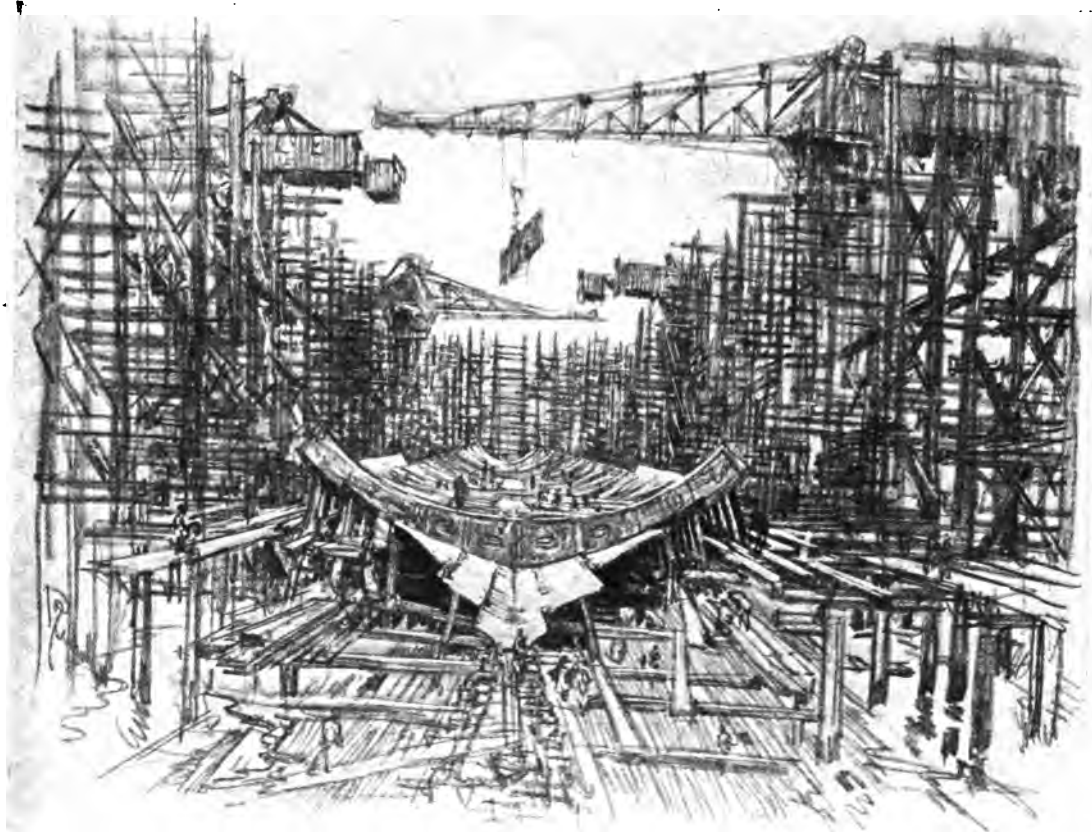
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I
THE KEEL

I THE KEEL

THE shipyards are endless and their forms are endless and ever new—but I never before found one where from the water I could look down on the ship while it grew as it did here, amid its forests, its walls—which it, in turn, would soon tower over.

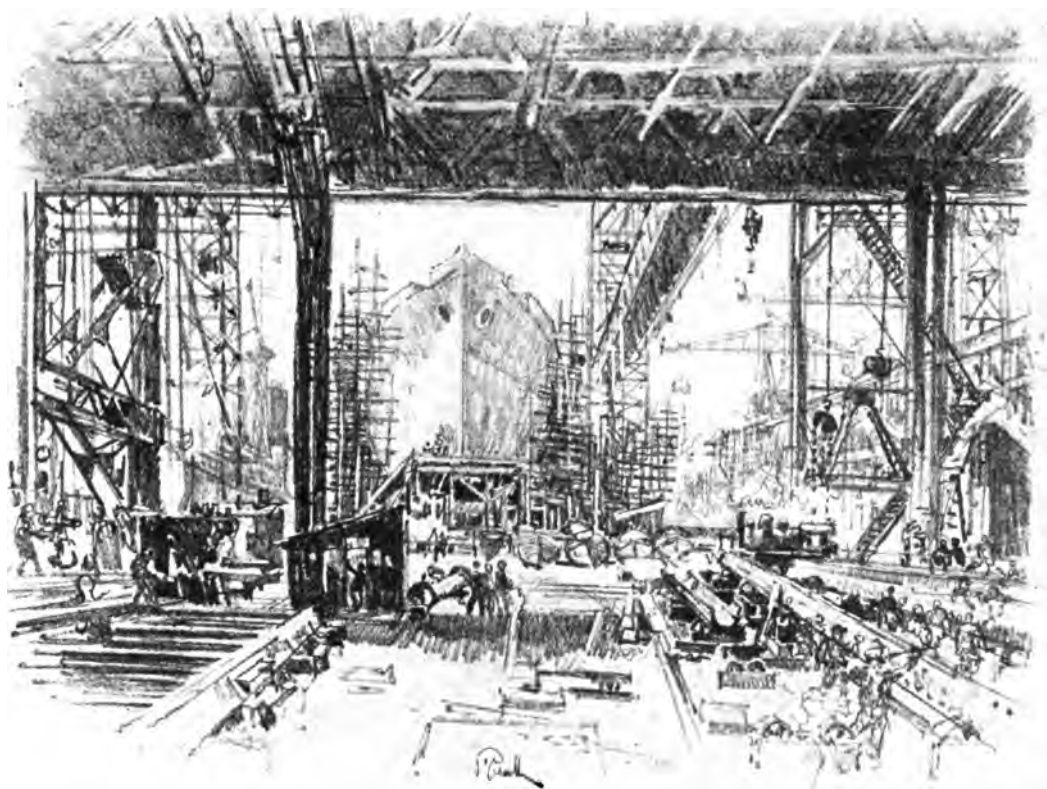


II
UNDER THE SHED

II UNDER THE SHED

IT seemed as though this yard was built for me, and if it was not that I found it so practical, I should have thought it only pictorial.

But in the shed in rows, in piles, in layers, lay every part of the ship ready to fit together—all in order. As I drew, boats and boilers came out of the shop and went to their places on board.



III
THE ARMOR PLATE PRESS

III THE ARMOR PLATE PRESS

THE English maker rolls rapidly his armor plate in heat and smoke and flame. The American slowly presses it, but with a press so powerful it will crush the huge ingot—so sensitive that it will not crack a watch crystal placed under it.

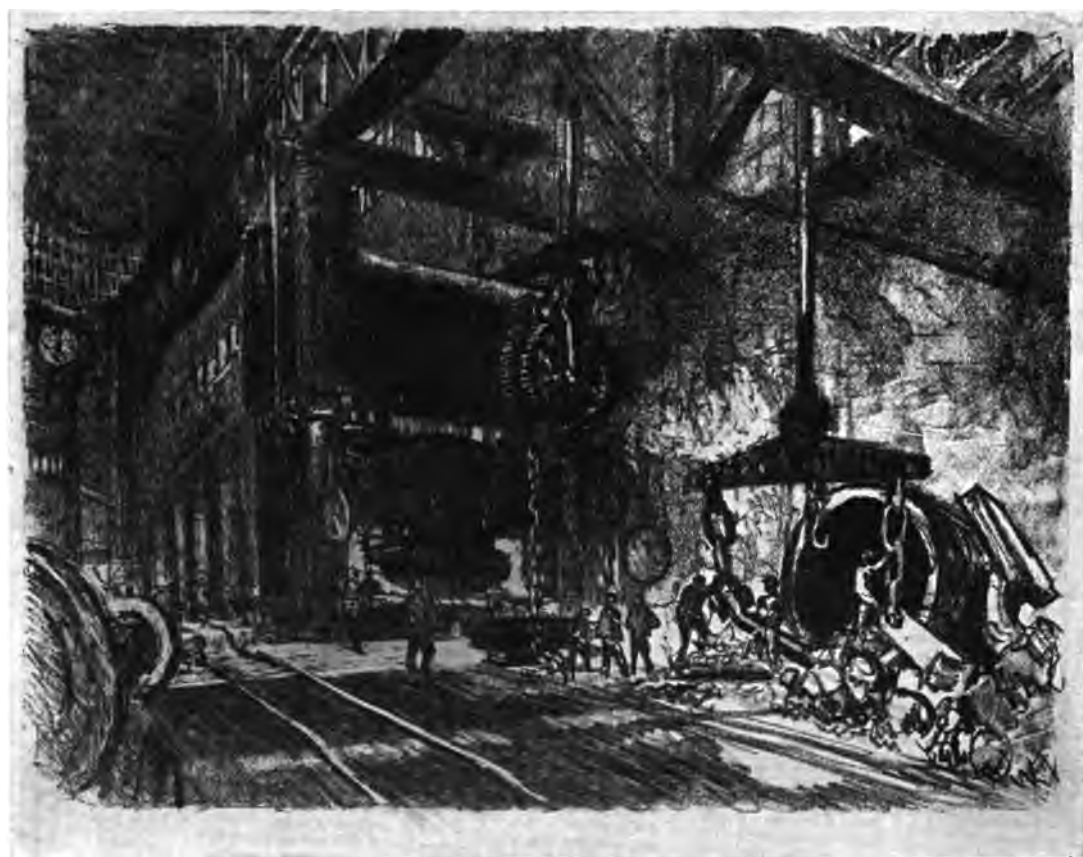


IV

**IN THE LAND OF BROBDIGNAG: THE ARMOR
PLATE BENDING PRESS**

IV IN THE LAND OF BROBDIGNAG: THE ARMOR PLATE BENDING PRESS

ONLY Swift never imagined, and Gulliver never saw, presses and ladles and chains and cranes like these, but I have seen them, and there is no imagination in my study of the press or the ladle. A press so powerful it will slowly bend the thickest plate. A ladle so big the men were lost in it.

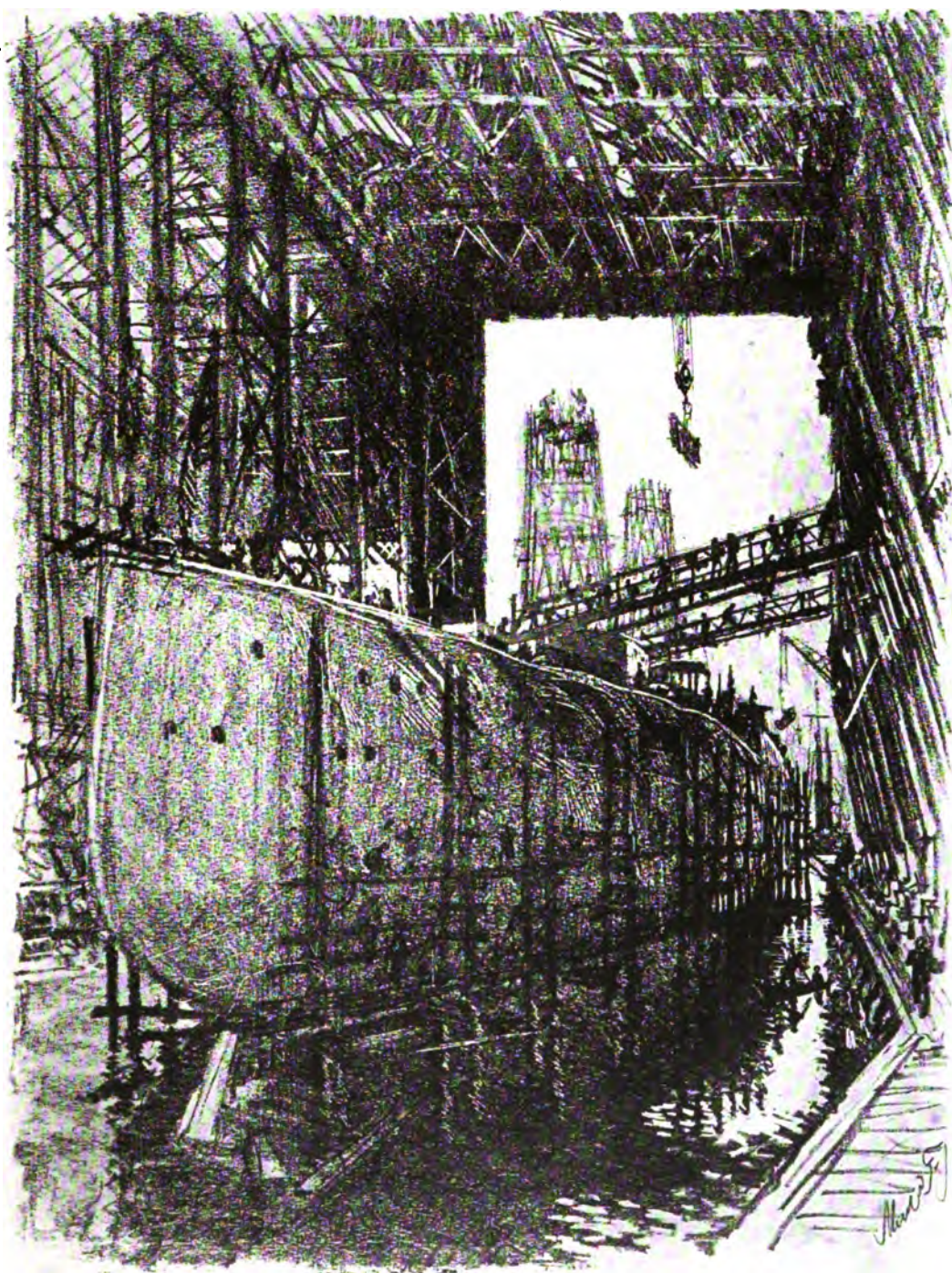


V

BUILDING THE BATTLE SHIP

V BUILDING THE BATTLE SHIP

INSIDE the huge shed where she was built and launched she lay getting her finishing touches—or rather those that could be given her, for her masts were too big to finish, her turrets were being fitted and her turbines put in—and soon she would begin her life of terror and horror.

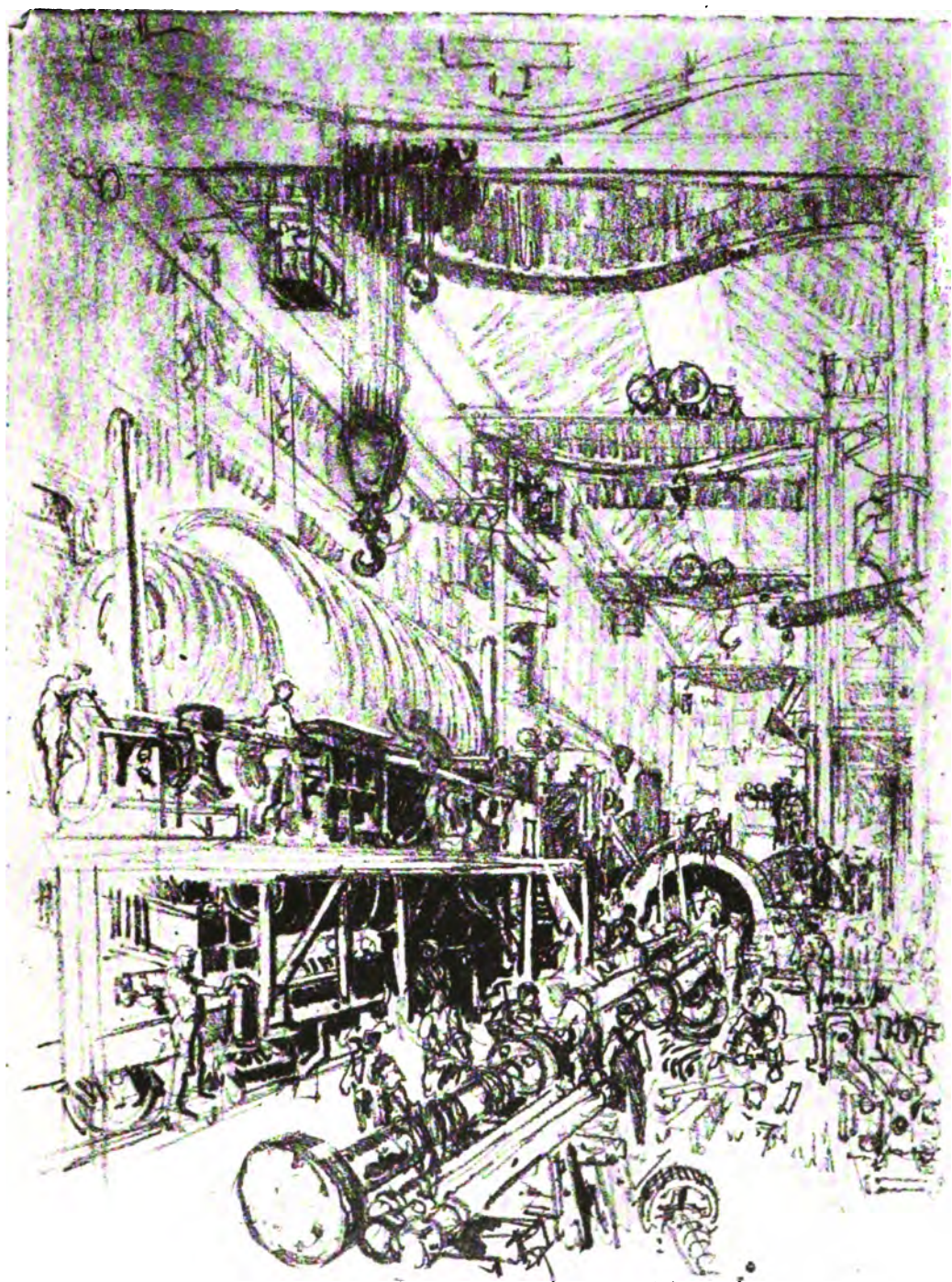


VI

MAKING A TURBINE ENGINE

VI MAKING A TURBINE ENGINE

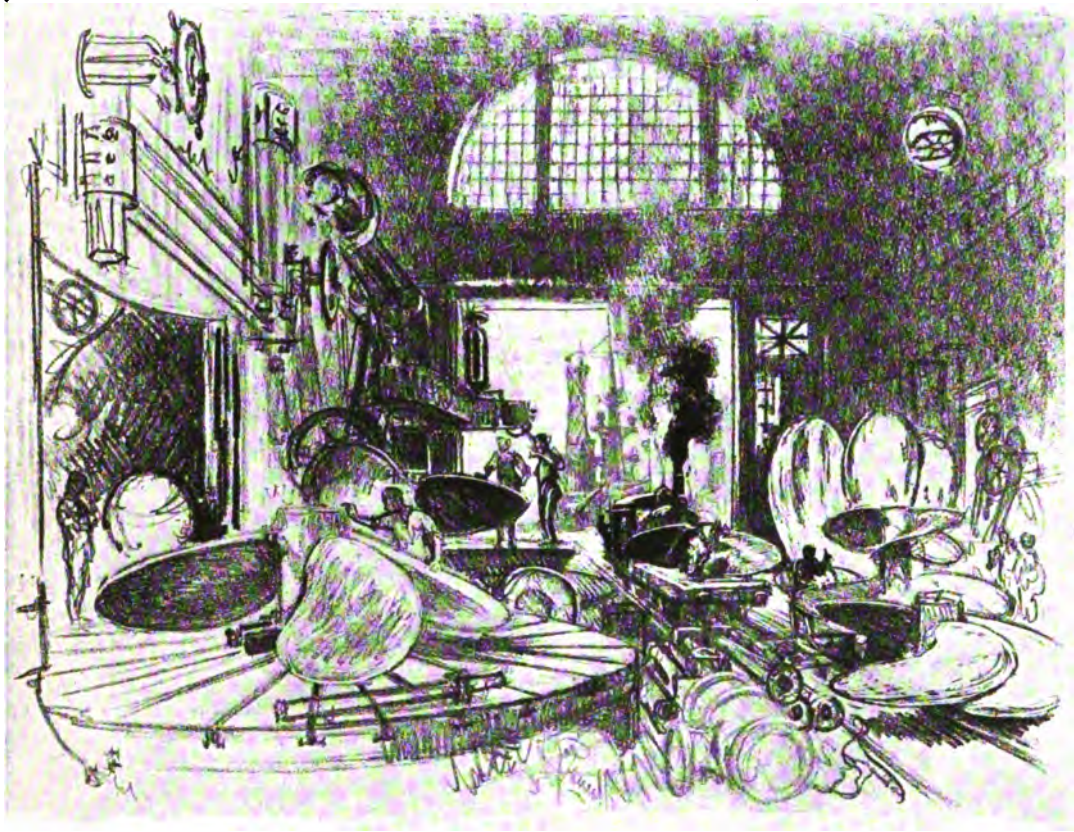
THIS is the finest shop, in which the most impressive work of modern times is done and it is “ somewhere in America ”; and as I worked away after five, one man said—
“ Wot’s yer hours, mate? ”



VII
MAKING PROPELLER BLADES

VII MAKING PROPELLER BLADES

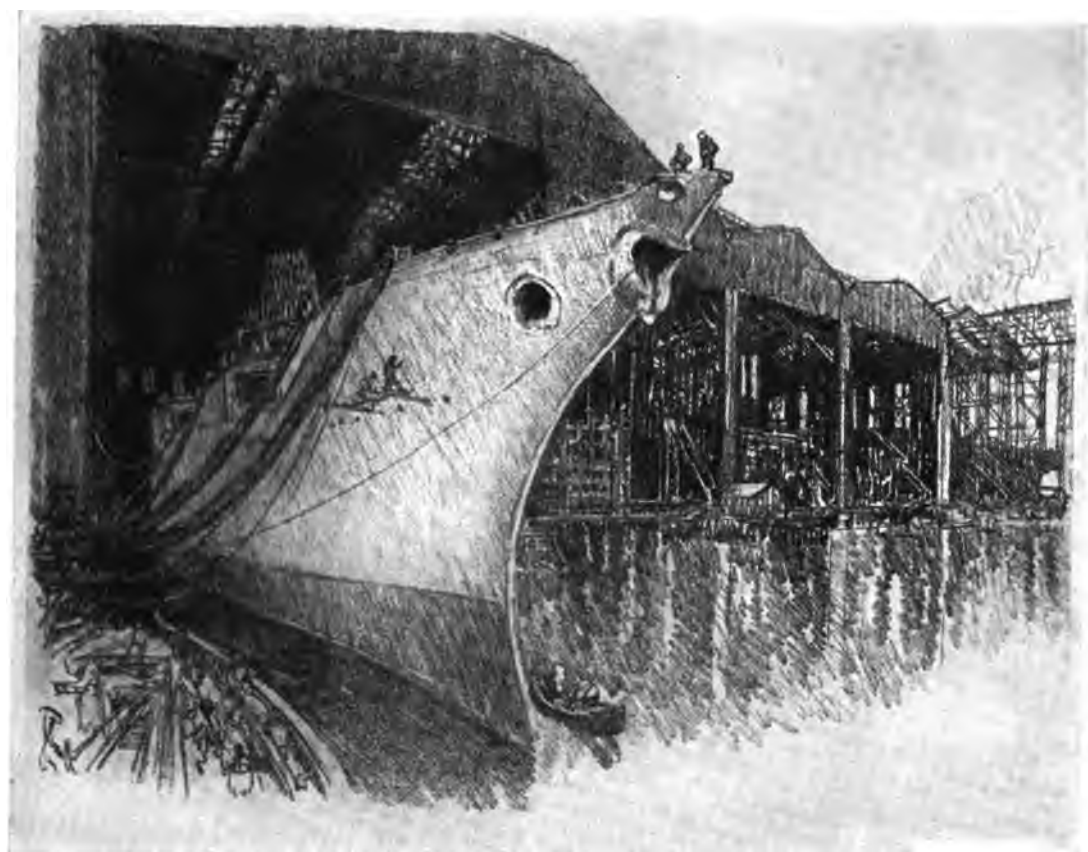
BLUE in the shadows and such blue—gold in the lights and such gold—were those blades—in this great shop—and as I worked the engine steamed in and carried one of the propellers off, to fit in the ship, standing in the dock just outside.



VIII
THE PROW

VIII THE PROW

VERY pretty drawing," said the officer when I showed him this leering, staring, slobbering monster, the spirit of war, a creation of our time and our country. It is fascinating but intolerable.



IX
READY TO START

IX READY TO START

DIGNIFIED, solemn, immense she stood, held to the long dock by the great cables; and the great cranes swung great carloads of war work aboard her, as fast as the engines could bring them.

On land she was guarded by marines. In the air the Planes were guarding her.

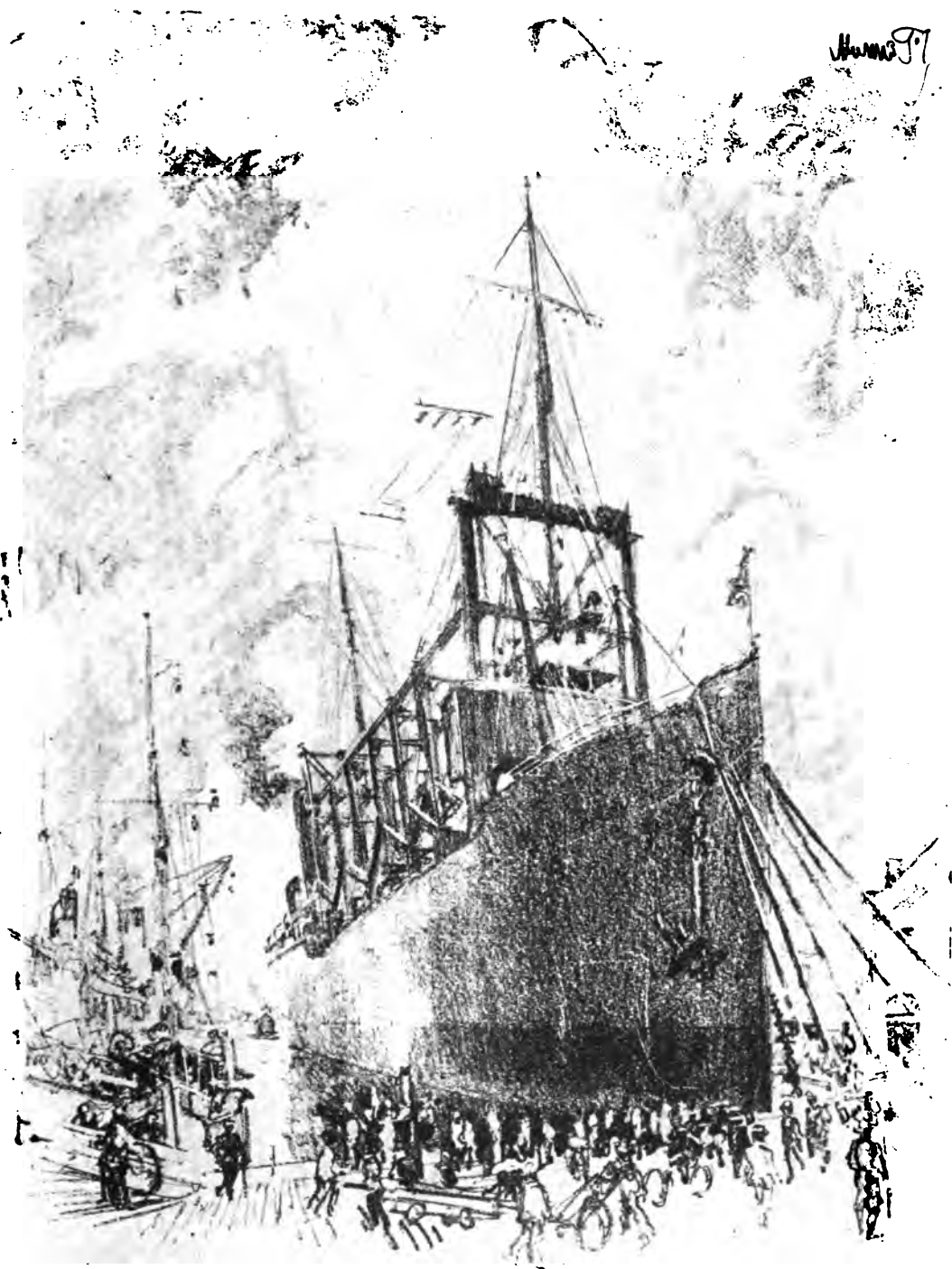


X
THE COLLIER

X THE COLLIER

THIS is a Freighter and Collier and the huge erections on its decks are cranes and derricks, by which other ships are coaled and loaded at sea. The system is not new, but I imagine many landsmen, like myself, till I drew it, had never seen such a creature.

Humorist



XI
BUILDING SUBMARINE CHASERS

XI BUILDING SUBMARINE CHASERS

ALL round the big ship the little boats gathered—being built out of doors, anywhere near the water, into which the crane swings them as soon as they are ready. It is like this they are being built all over the country.

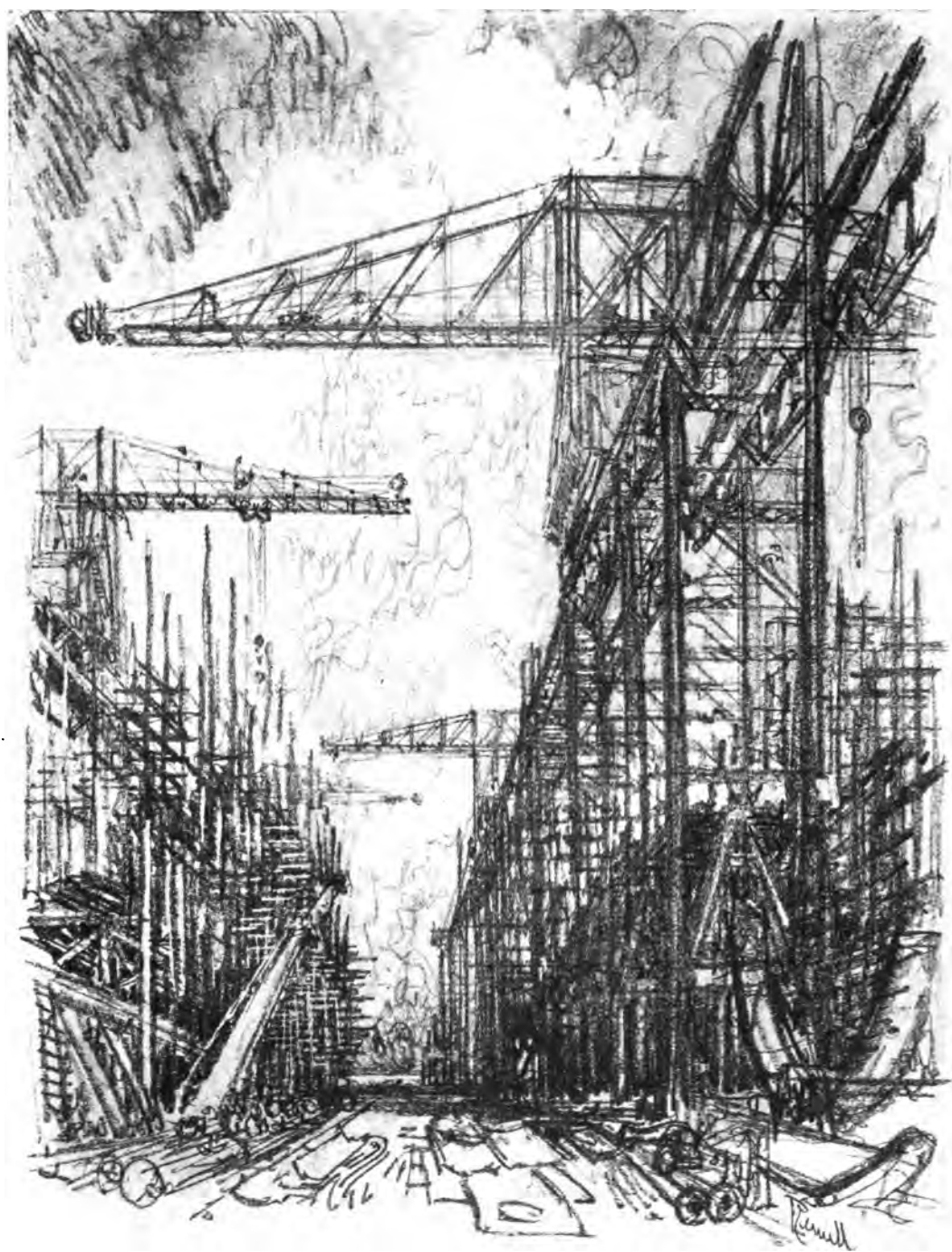


XII

BUILDING DESTROYERS. NO. ONE

XII BUILDING DESTROYERS. NO. ONE

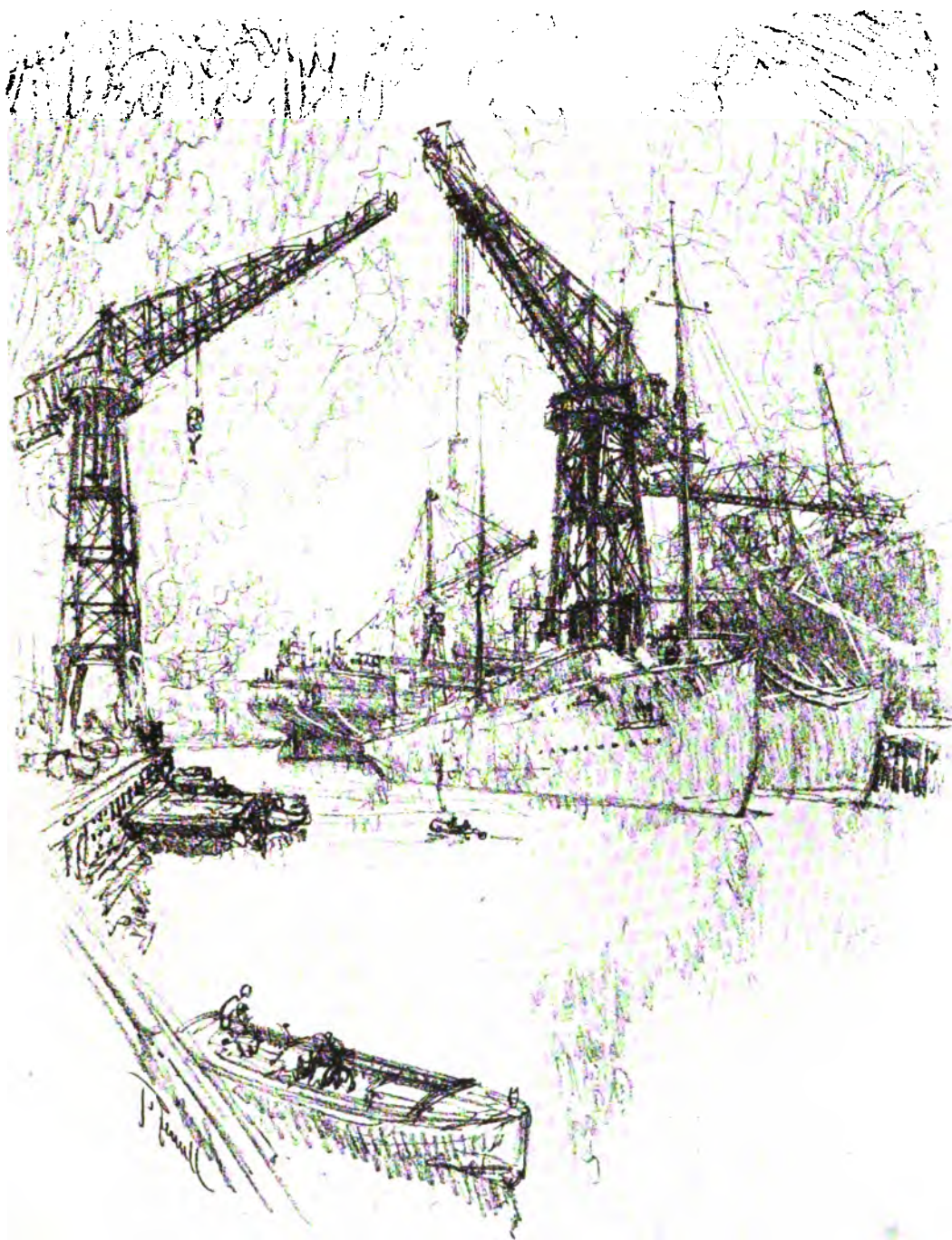
AMID the great ways, the little destroyers are built. While the work of building is going on, there seem to be no workmen about—though the noise they make is terrible. The various parts of the ships lie about apparently in confusion, but the crane knows what it wants and where to find it, and picks it up and carries it to its proper place. It is only when the men knock off that you see what an army is engaged in shipbuilding. And it was too funny to be told as I went about—I must not smoke—yet hundreds of drills and riveters were shedding showers of sparks and there is nothing but iron to be seen.



XIII
BUILDING DESTROYERS. NO. TWO

XIII BUILDING DESTROYERS. NO. TWO

HOW the cranes minister to the ships, carrying them the things they want, lowering them gently into the places where they belong and then hovering over the vessels they are building to see that everything is in its proper place—the cranes do it all—the men who run them are mere details.

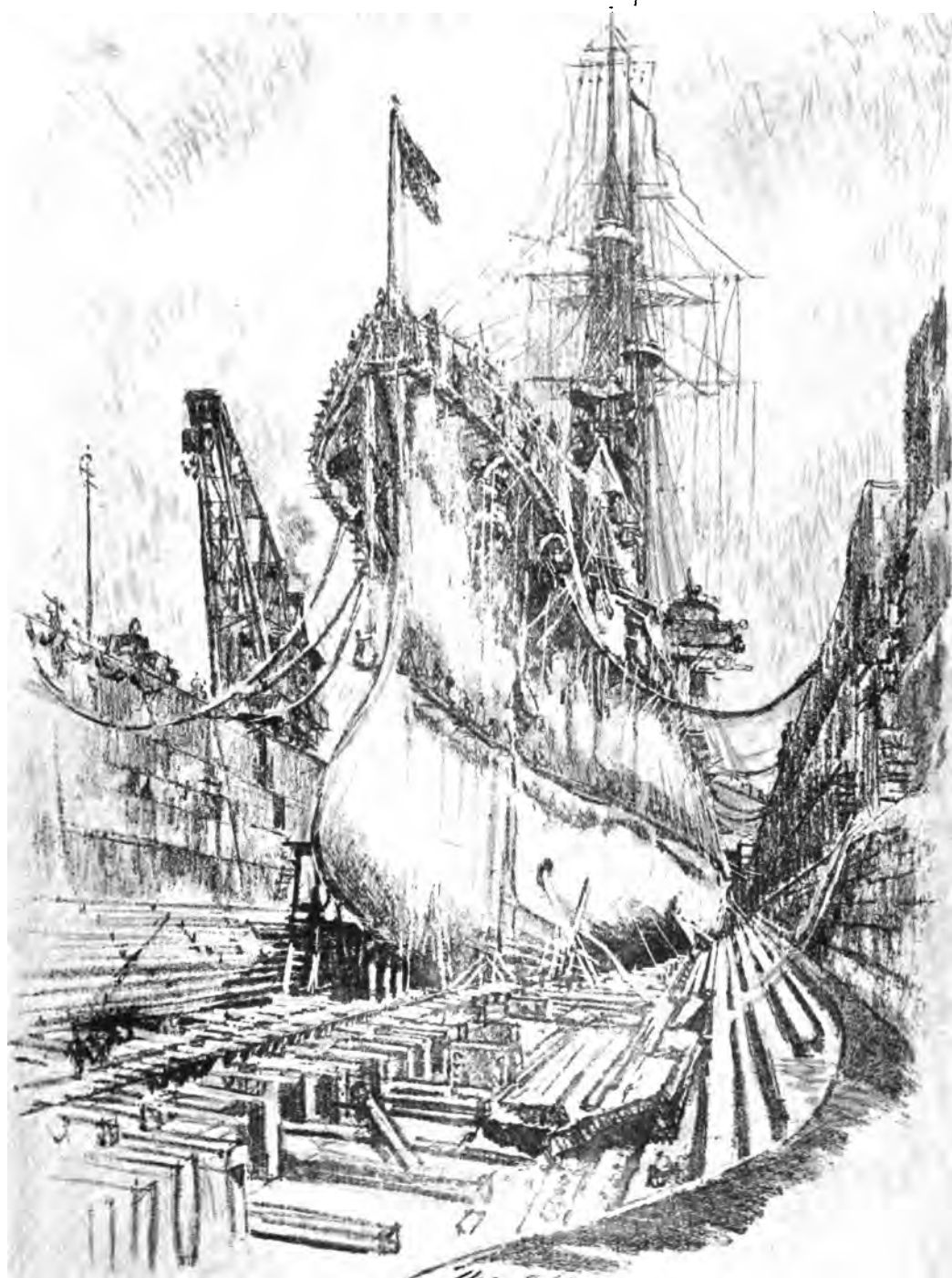


XIV
IN THE DRY DOCK

XIV IN THE DRY DOCK

THESE are the things that tower—that shine—whose power is terrible—but their smile does not make glad.

The admiral said he could not see the ship like that—
“Don’t you wish you could?” was the only answer I could think of.



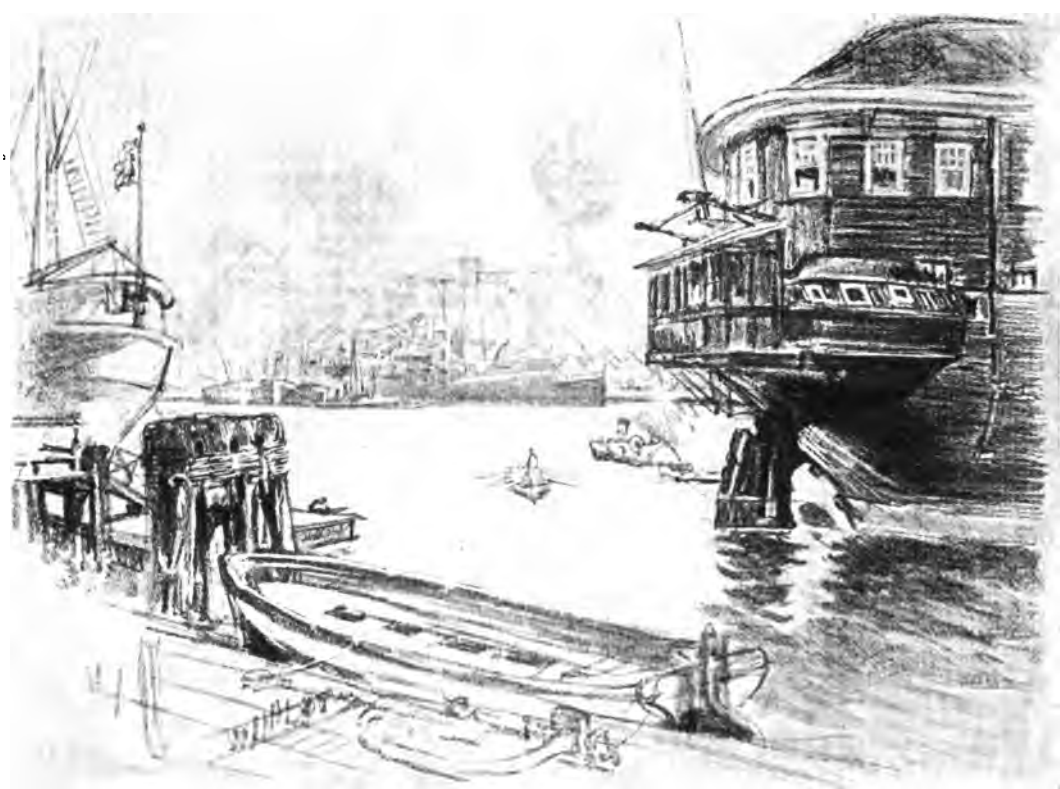
Alfred W.

XV

THE OLD AND THE NEW

XV THE OLD AND THE NEW

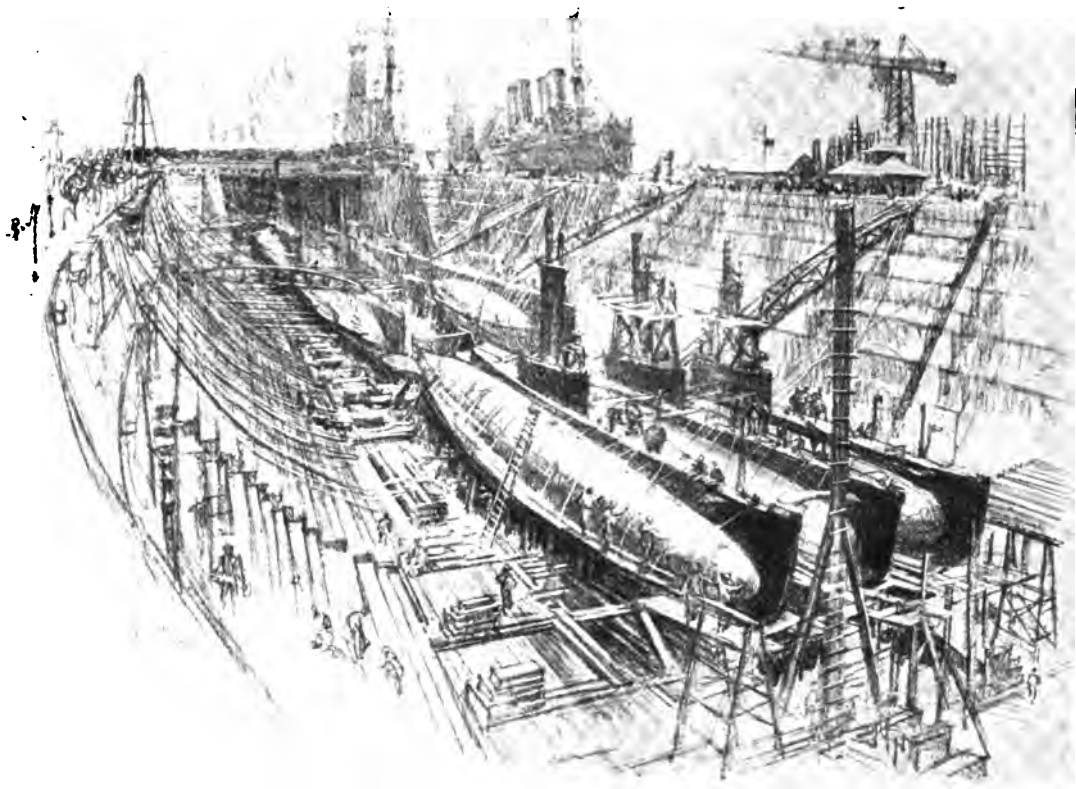
WHETHER the old wooden ship is finer in line than the new steel monster is more than I can decide, but I do know that both are well worth drawing.



XVI
SUBMARINES IN DRY DOCK

XVI SUBMARINES IN DRY DOCK

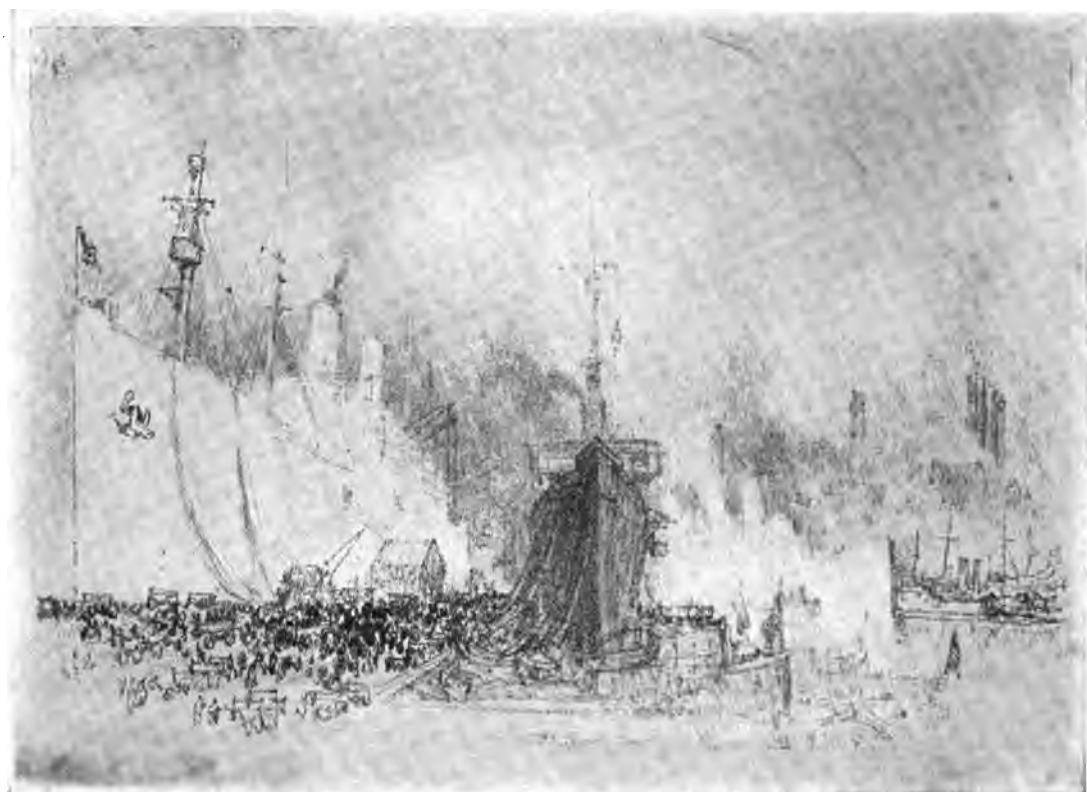
THERE they lay in long lines—soon to be ready to start on their venturesome voyages.



XVII
THE TRANSPORTS

XVII THE TRANSPORTS

THE spoils of war, for what had been great traders were now to be great troop ships—and with their transformation what an awful change has come to our world.



XVIII

READY FOR SERVICE AGAIN

XVIII READY FOR SERVICE AGAIN

IUST as retired Officers have offered their services again to the Country—so these old Ships, even more pictorial than the new, are being found places where they can do their “bit.”

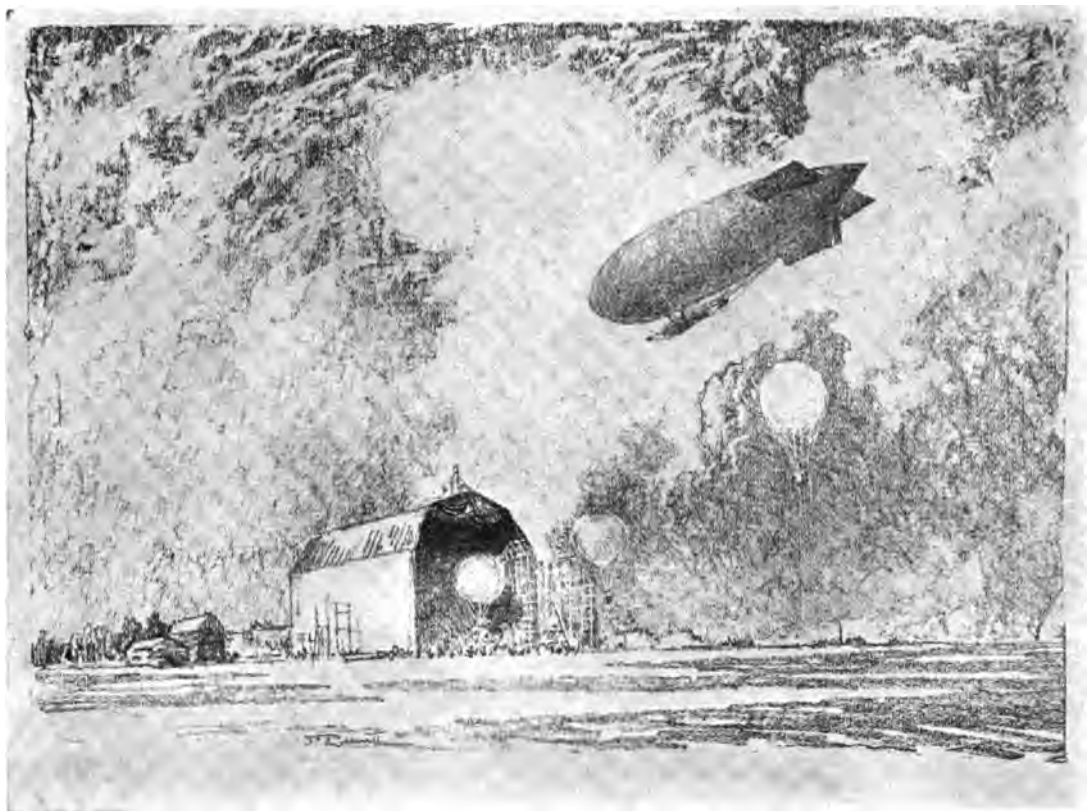


XIX

THE BALLOON SHED

XIX THE BALLOON SHED

I ONLY know of this one “balloon shed” in the country—probably in design it is out of date—but pictorially it is fine.



XX

THE LARKS

XX THE LARKS

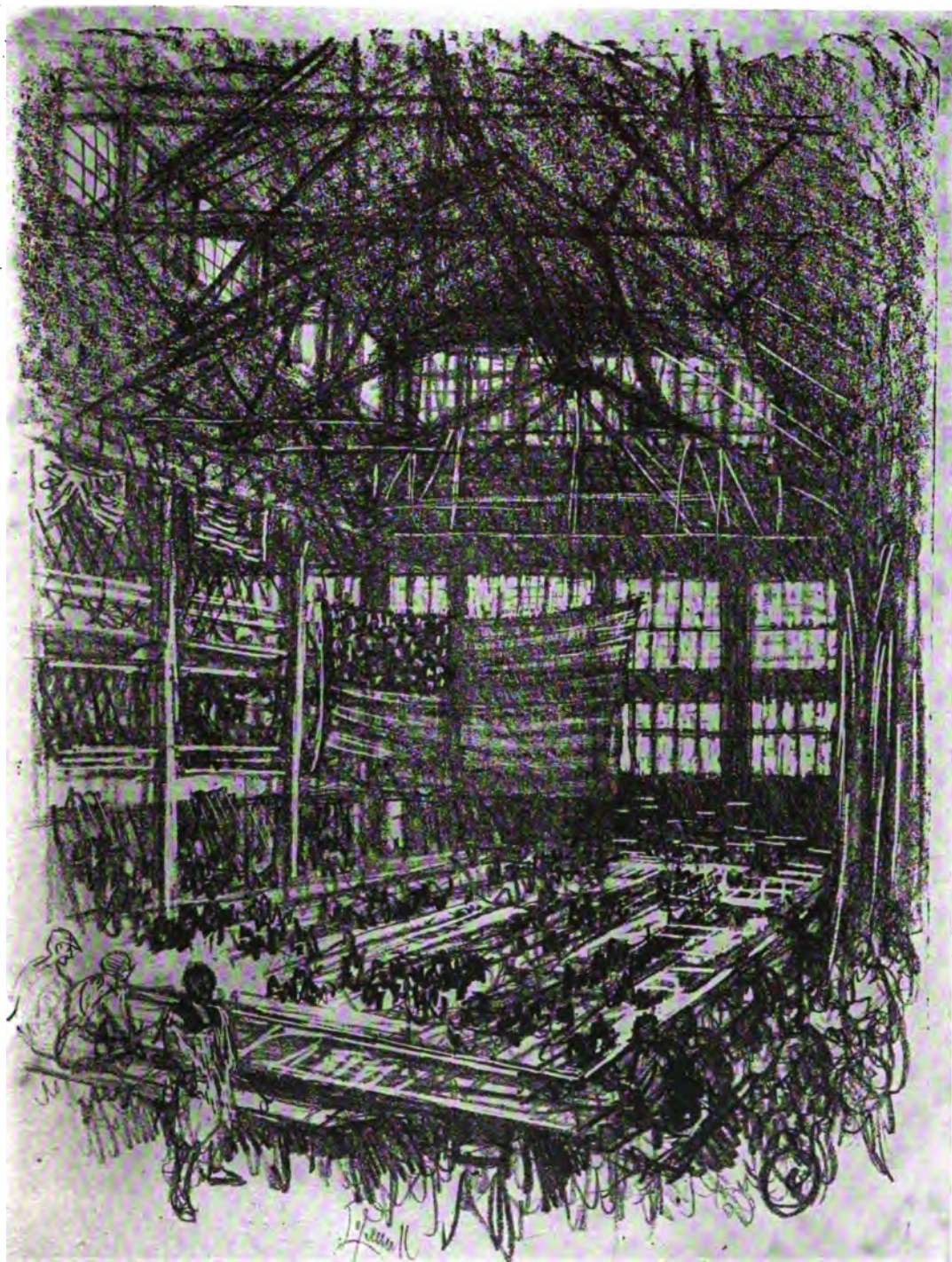
HARK, Hark the Lark," this one sings a song too, all his own, as he soars up to greet the coming sun, then away to battle or to train for it. Our Lark.



XXI
MAKING RIFLES

XXI MAKING RIFLES

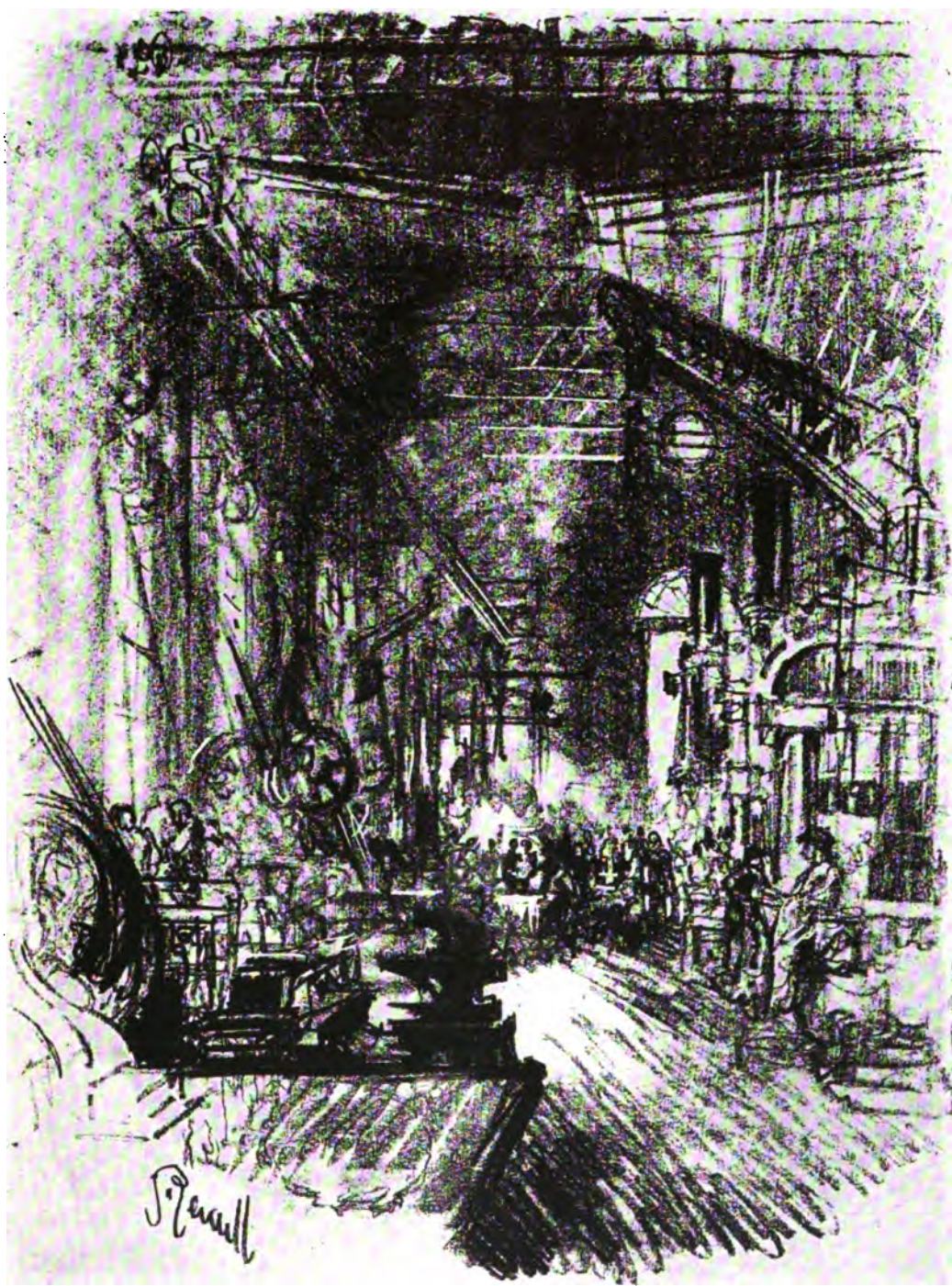
GALLERY after gallery is like this in the great building, all filled with tiny men working at tiny machines making the tiny guns they fight with; and over them hangs the flag of the country, put there, the director told me—not by the management—but by the men.



XXII
THE FORGES

XXII THE FORGES

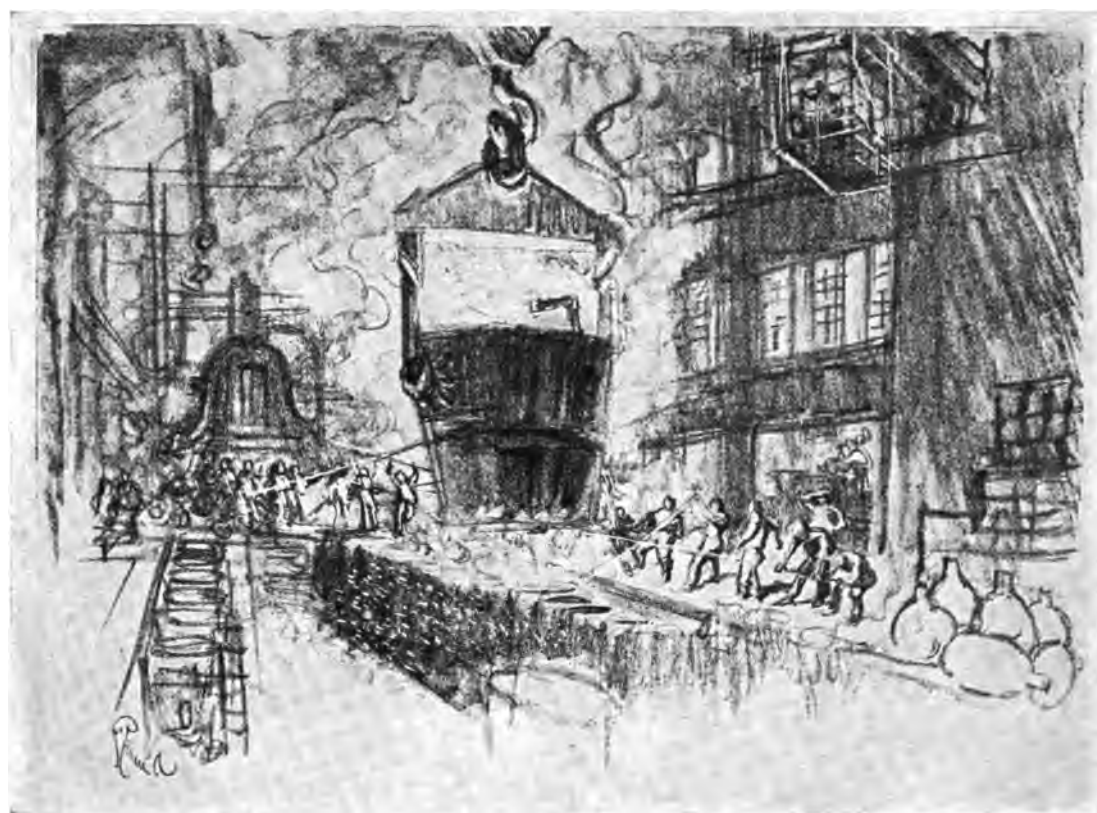
HOW fine are the forges—but one man said as I drew the figure leaning back to rest—“Hully gee! He’s got Creeper all right. Look at his pants!” But the noise is awful—and one day as I sat on a bit of boiler a roar ten times worse than ever before broke out beneath me and I jumped right off, and from the boiler crawled a grimy human who, putting his hand to his mouth, yelled “What yer making all that racket fur?”



XXIII
CASTING SHELLS

XXIII CASTING SHELLS

SLOWLY the ladle moves, carried by the crane man, steered by the workmen, goggled and gloved—I had no time to draw those details. Into each mould it dropped just enough molten metal to make a shell head. And when all the moulds were filled, a man from another shop dropped in—"Say, what youse up to now?" "Me—I'm makin' shells for the Kaiser." "What! an' here?" "Sure"—and as a French Inspector passed—"Ain't we sending 'em to him as quick as we kin?"

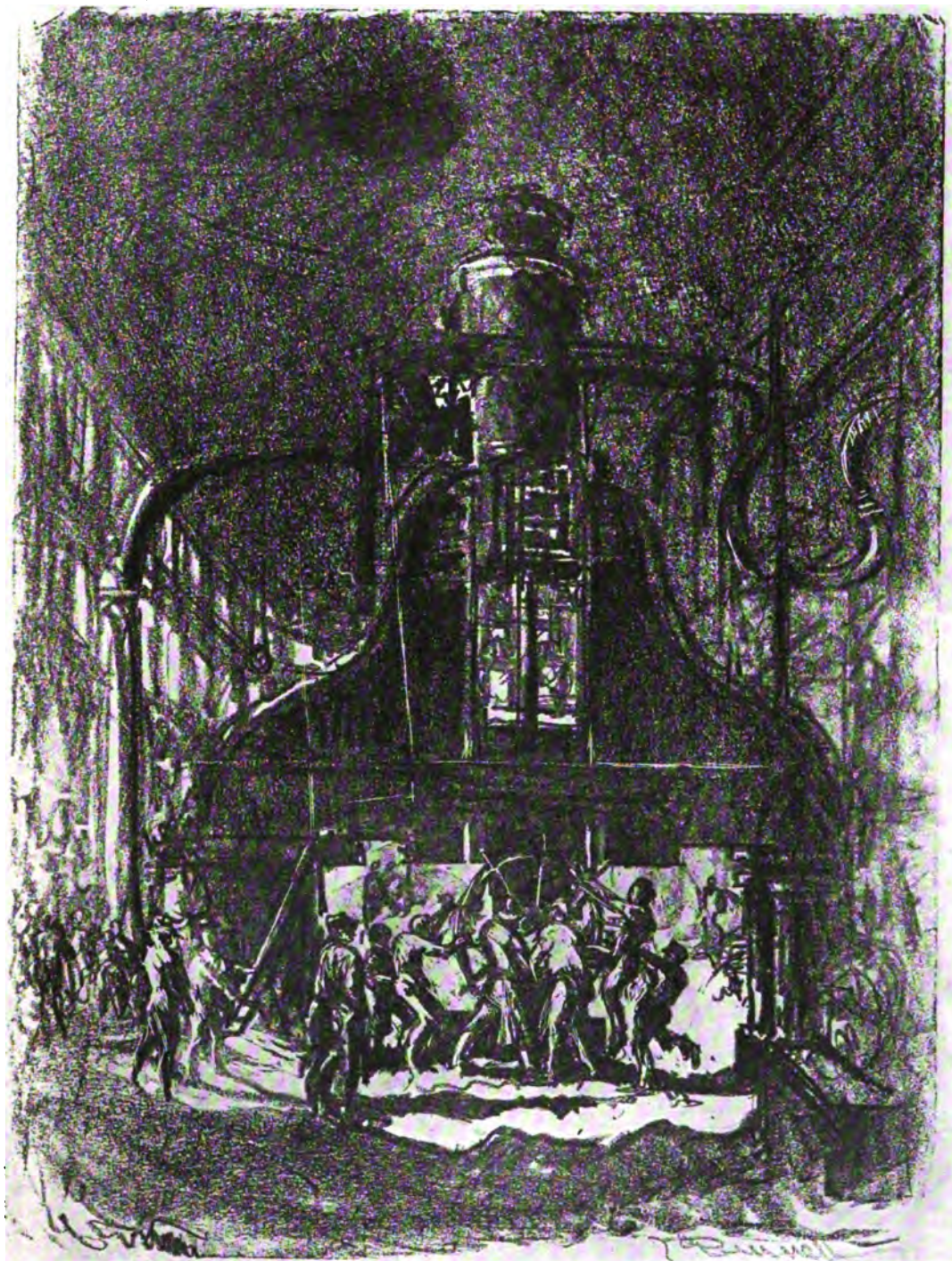


XXIV

FORGING SHELLS: THE SLAVES OF THE WHEEL

XXIV FORGING SHELLS: THE SLAVES OF THE WHEEL

NO composition could be finer, no movement more expressive, no grouping more perfect, and yet all this was happening every day and all day in an oily, dirty, greasy, smoky shell factory where no artist had ever worked before and the workmen, black men, were turning the big shell, under the big hammer, by the big capstan wheel that held it, and I noted in the shop that the black men saw more in my drawings than the white, yet there's only one black painter in the country.



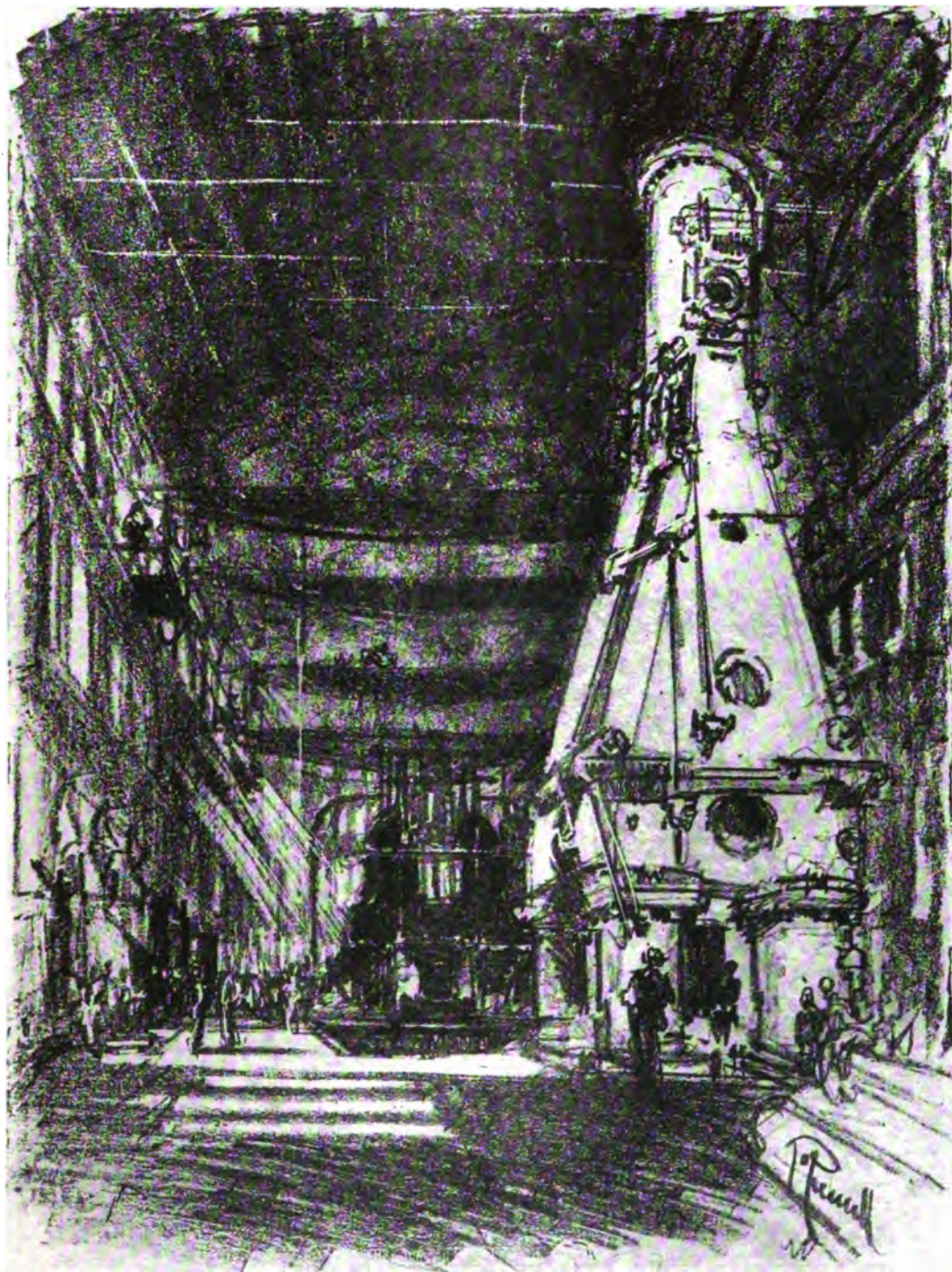
XXV

THE WHITE AND THE BLACK HAMMERS

XXV THE WHITE AND THE BLACK HAMMERS

THE biggest hammer in the world, said the foreman, maybe—any way the Shop was amongst the most pictorial of all those I have drawn devoted to shell making.

“Say, friend,” said the workman, “won’t they let yer use a machine, in war time, is that why youse does it by hand?”



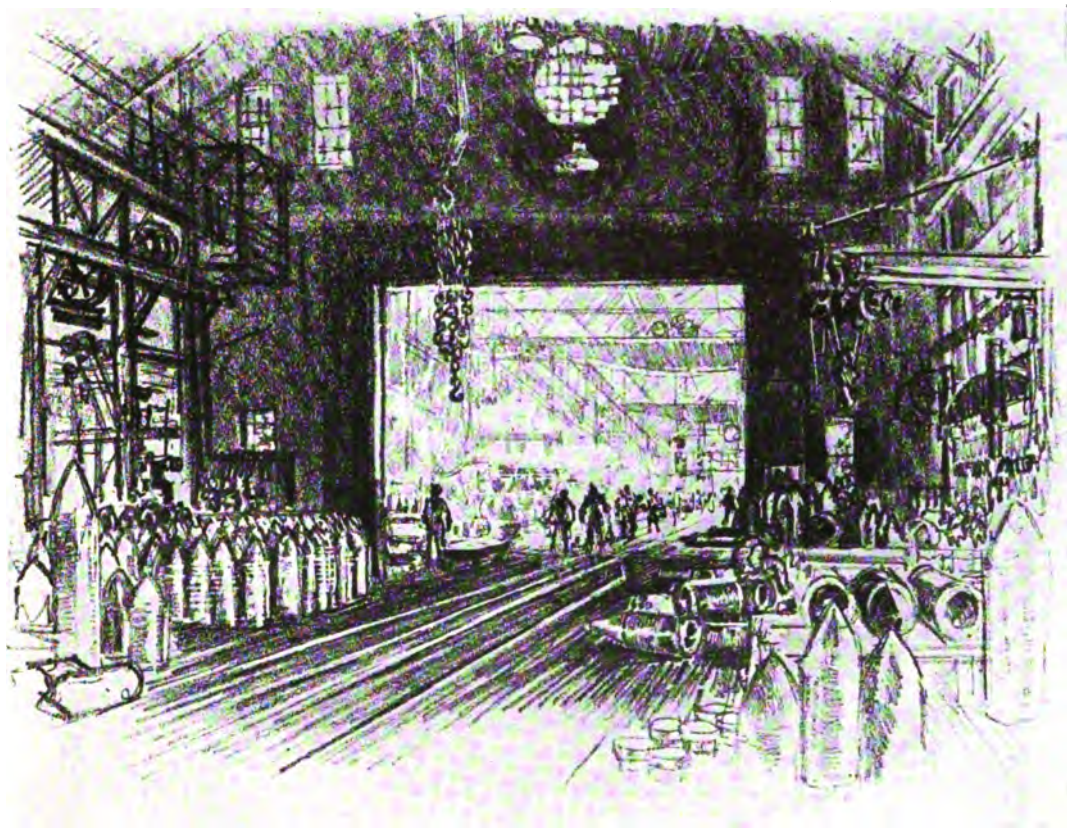
XXVI

SHELL FACTORY NO. TWO: FROM SHOP TO SHOP

**XXVI SHELL FACTORY NO. TWO: FROM SHOP
TO SHOP**

THE contrast between the dark old shop and bright new one was wonderful.

“Pretty good, Dad,” said a precocious apprentice. I suppose they don’t mean anything but compliments, still I never fail to lose my temper, then the peace maker appears—“Don’t mind that kid, mate, he dunno no better, he’s edurkated.” “Say, wot paper’s it comin’ out in—I’ll buy that paper.” That was a compliment.

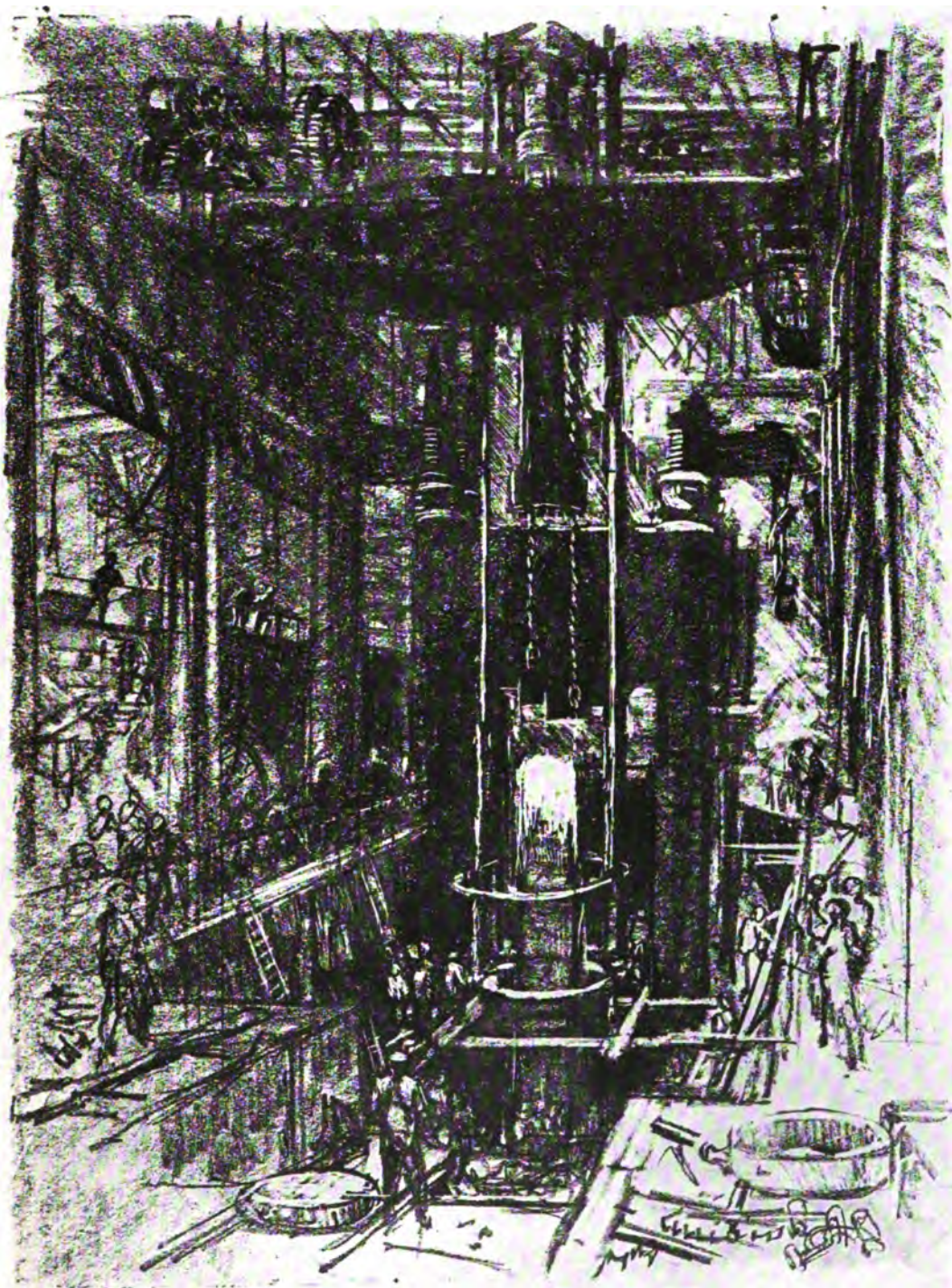


XXVII

SHAPING A GUN FROM AN INGOT

XXVII SHAPING A GUN FROM AN INGOT

WHEN the ingot comes from the furnace, it is put in this press, deep buried in a pit, and the hot metal is compressed into the shape of a section of a great Gun—then it is taken out and bored and planed and finally, after about a year of work, the gun is ready to do its work.



XXVIII

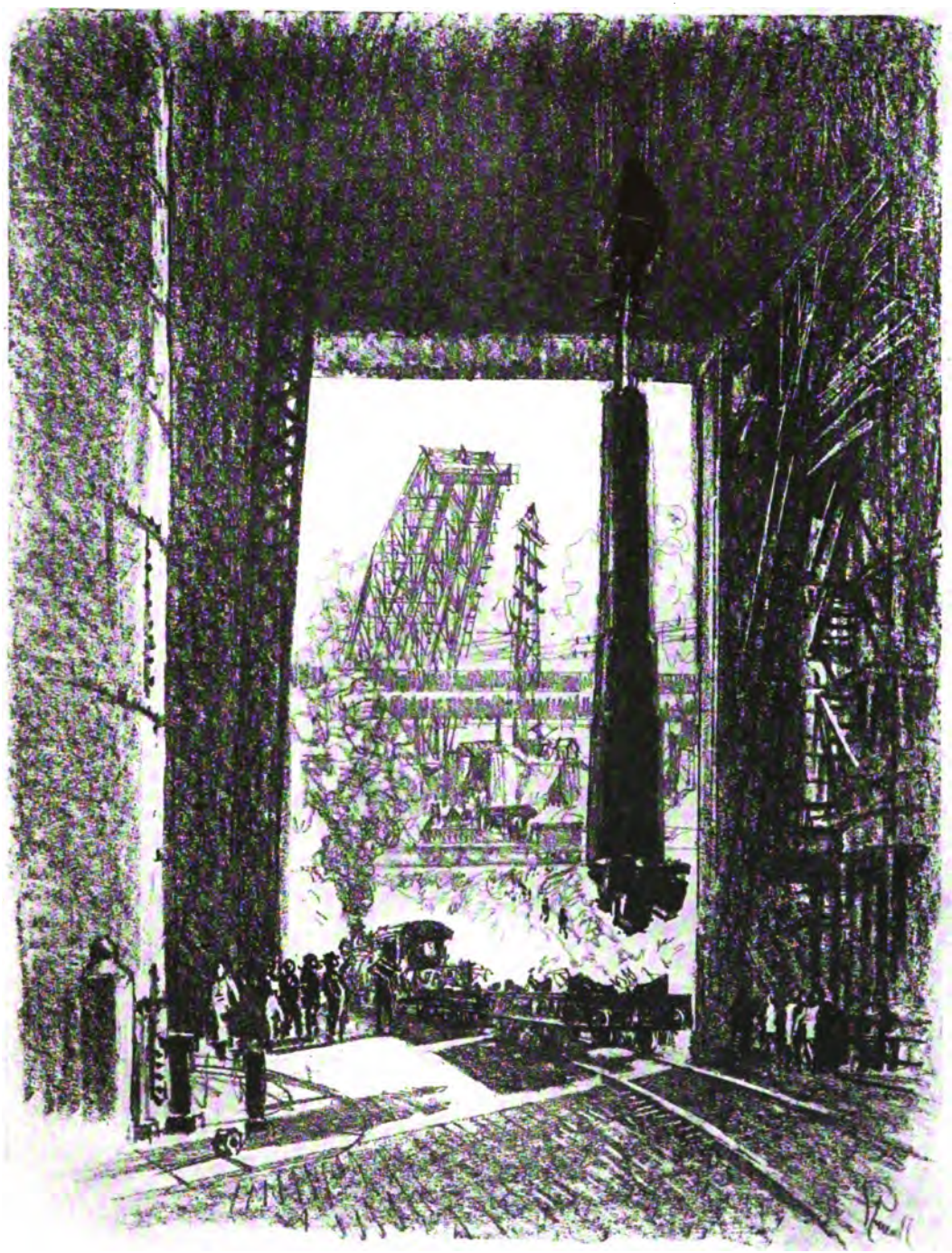
THE GUN PIT. NO. ONE

XXVIII THE GUN PIT. NO. ONE

THESE Pits which I have drawn in Europe and America have the greatest individuality of all the processes of war industry. The buildings are most impressive, towering, windowless, sombre without, very spacious within, filled with strong shadows and strange shapes.

And as I looked out from the blackness to the ore crane, making new ranges of Alps on its hillside, I wanted a gun—or rather wanted to know how it was moved.

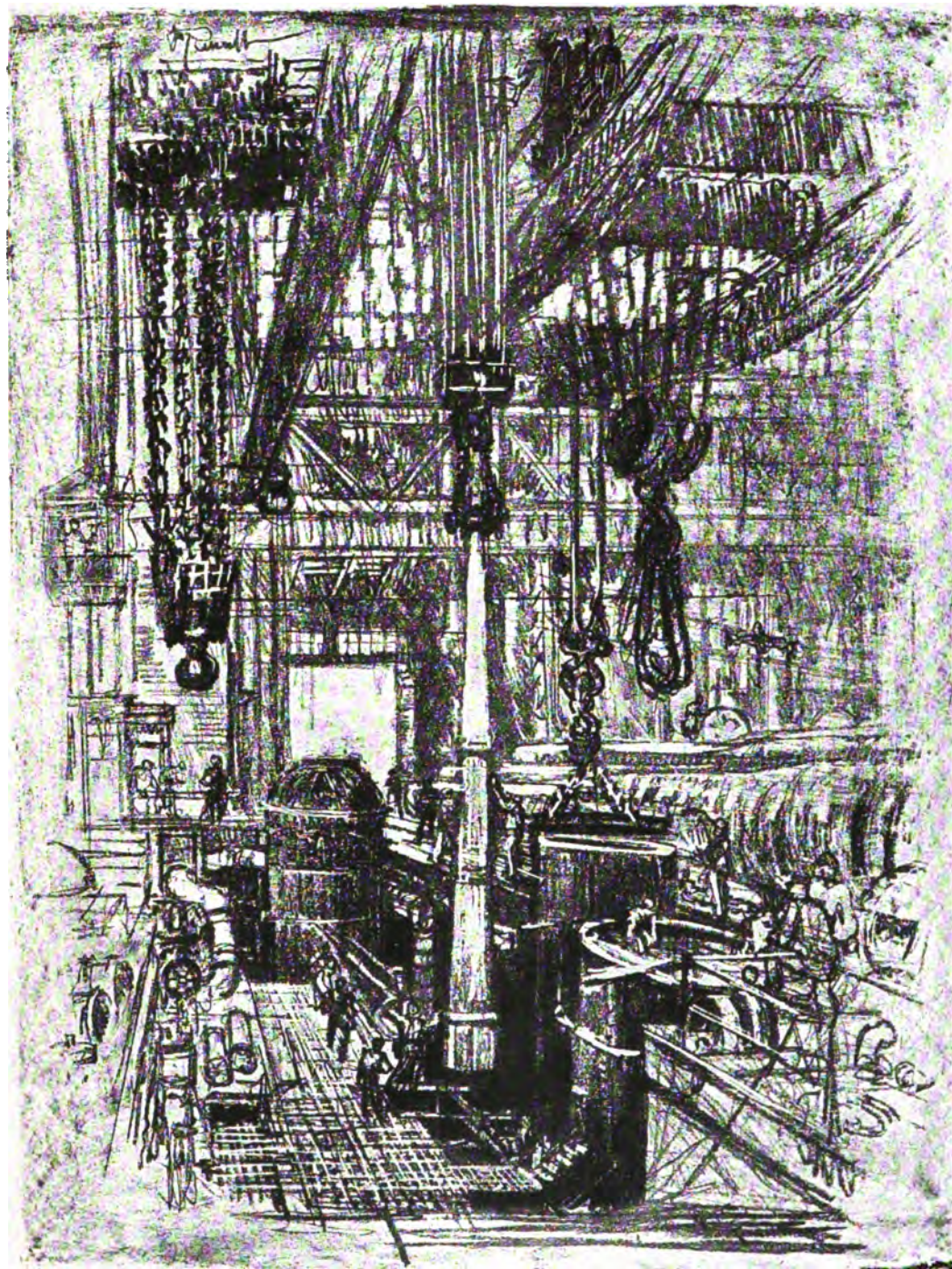
“Why, bring him one,” said the manager—and it came and posed while I drew, and was such a good sitter. And so I find my studio and my models wherever I work.



XXIX
THE GUN PIT. NO. TWO

XXIX THE GUN PIT. NO. TWO

NO better proof could be shown of the way each big plant puts big character into its products than this and the previous drawing. Here everything is done deep down under ground; in the other shop it is all above, away up high in the air. And one day, they told me, the President of the Company passed with a party—and he saw a man, tired out, sitting with his head in his hands. “Why don’t you clean out the pit, boy?” “Well, Sammie, if you want to know why, you go down an’ find out for yourself.”



XXX

THE GUN FACTORY

XXX THE GUN FACTORY

SO like a British one, that I wonder which one got the idea of arrangement of the Shop from the other. Here the guns are turned; and one man said to me: "Well, I don't know whether I'll be drafted by the U. S.—but I do know, I'd sooner waste my time makin' guns, than spend it havin' 'em shot at me by some Dutchman."



XXXI

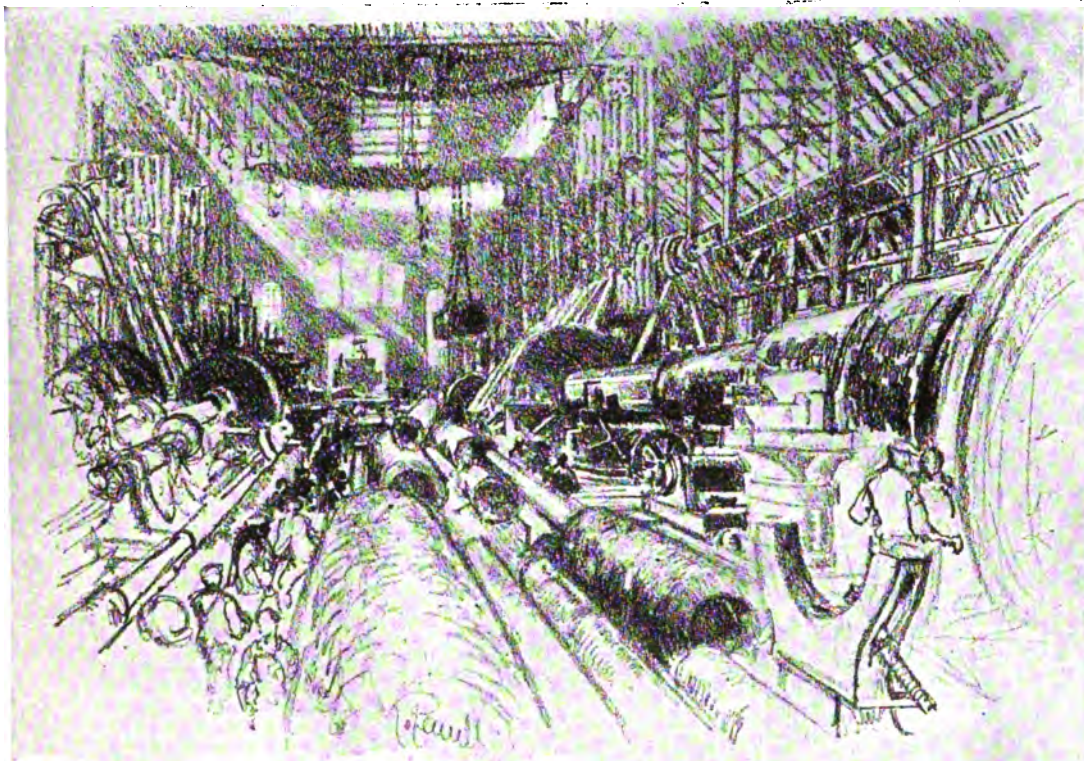
THE BIGGEST LATHE IN THE WORLD

XXXI THE BIGGEST LATHE IN THE WORLD

MANY of the subjects I have chosen are probably the "biggest in the world" and the most impressive, too—that is the reason why I have drawn them. I have seen great lathes and great guns in Europe, but this one is certainly greater than any other.

"You couldn't do that, Fatty," said the man.

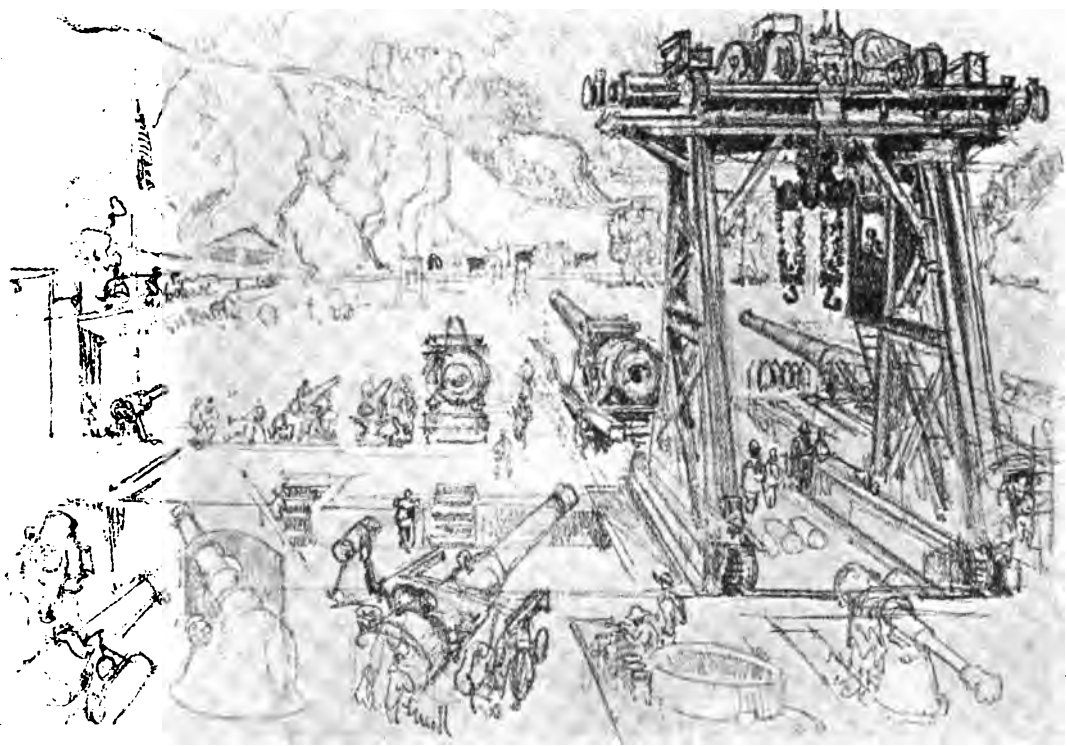
"Couldn't I," said the other. "You bet I could if I had been drawin' lathes as long as him!" It was the second one I have drawn.



XXXII
THE GUN TESTING GROUND

XXXII THE GUN TESTING GROUND

I NTO the rocky cliff great holes had been bored, and into them the Guns mounted on their carriages, by the great gantry, were fired, passing through wires hung from screens, to test their velocity. One thing that interested me, standing behind the guns—interested me too much, really—was, that there was no smoke, save that which came out of the hole where the shells exploded. And another fact was, that I could not see the shell in its flight—nor can those at whom it is fired—it goes so fast the sound cannot keep up with it. Sight cannot follow it.



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XXXIII
THE RIVETERS

XXXIII THE RIVETERS

WHAT perpendicular cathedral is as full of mystery as this shop. I know of none and I know most of them, and when the fires glow on the work altar, and the great jaws pierce and rivet the boiler plates, then is heard the Hymn of Work.

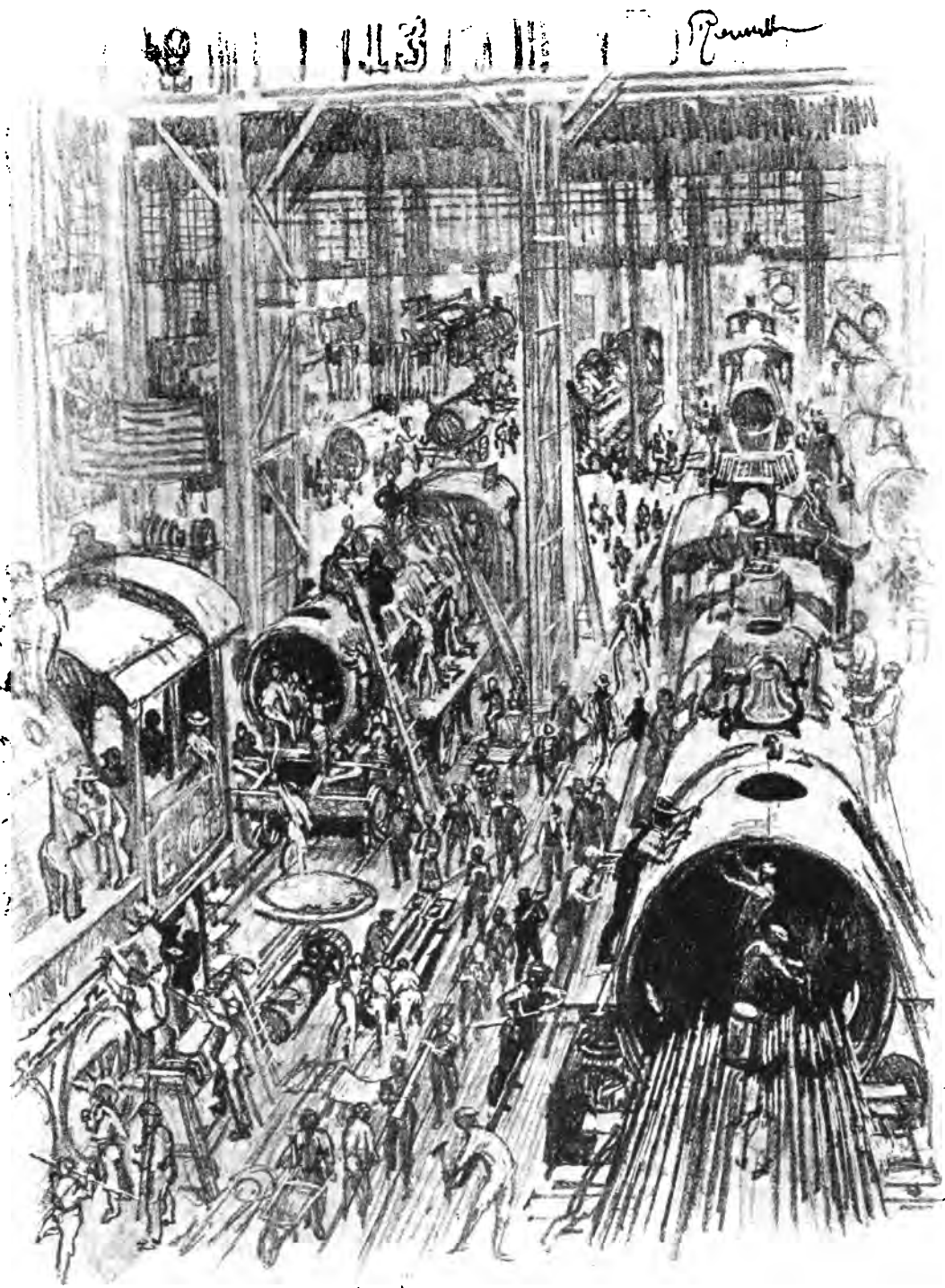


XXXIV

BUILDING ENGINES FOR THE ALLIES

XXXIV BUILDING ENGINES FOR THE ALLIES

IN serried lines they stood—first one for Russia—then one for France—and on the other side several for ourselves—and I said, “Why, this is Ford’s idea!” for the parts came in at the sides of the shop and the finished engine steamed out at the end. “Oh, yes!” said the manager, “only we have been doing it twenty years,” and now they build a locomotive in four days.

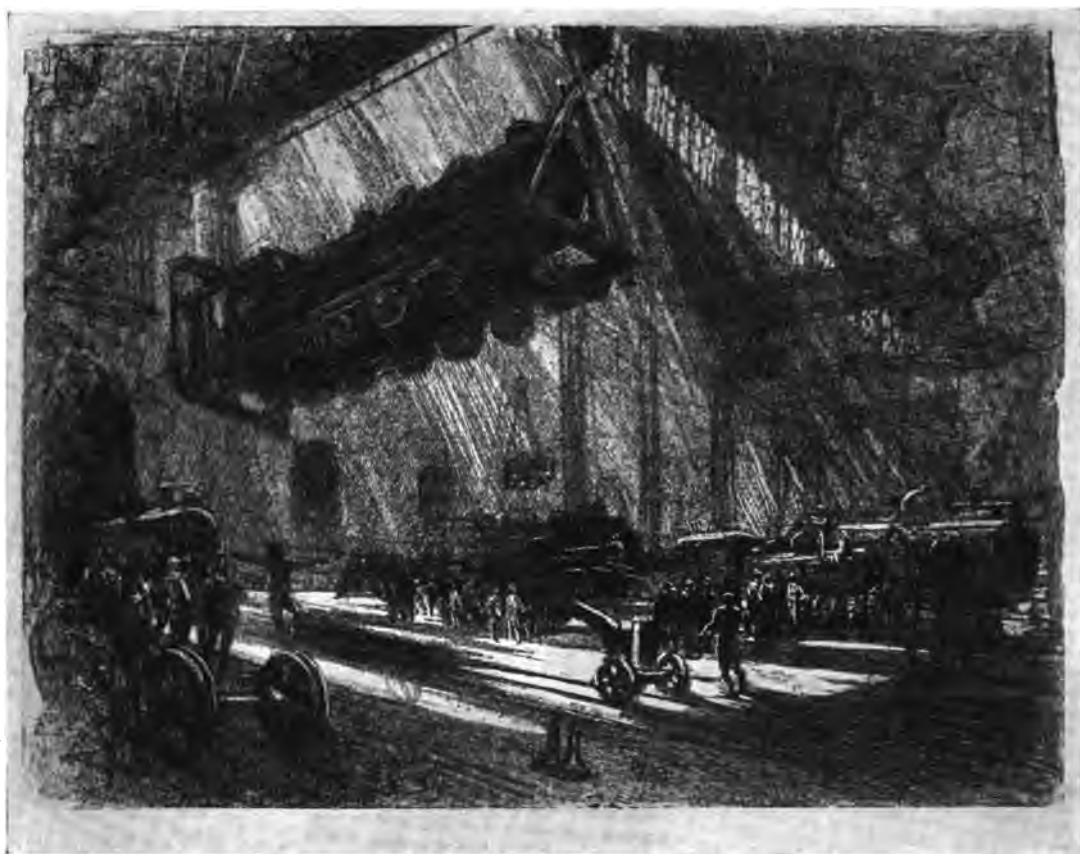


XXXV

THE FLYING LOCOMOTIVE

XXXV THE FLYING LOCOMOTIVE

YES, locomotives can soar—can fly—and, like Mahomet's coffin, stand in the air; and they do these things in a blaze of glory—because the shop where they are built is not big enough to shift them about in any other way. As the engine sailed toward me I tried to make a note of it. "Why would you like to draw it?" said the manager, as I frantically went on making notes of the approaching monster. "Which end would you like up?" He made a signal, they don't talk in these shops, it stopped and there it hung. "Bring on another," signalled the manager—and so I drew and so the creature posed till I had finished—an excellent model in a wonderful studio.



XXXVI

THE CAMP: THE NEW ARCHITECTURE

XXXVI THE CAMP: THE NEW ARCHITECTURE

IN the centre of the new city is something like a long train of box cars—yet when you see their sides you find they are houses. As you look they grow—and from a few holes in the ground till the building is finished takes about forty-five minutes, the architects tell me. They are better built than the English Munition towns—they are unbelievable—these Cities of fifty thousand inhabitants built while the army was formed. This drawing is but a bit of one of them—to right and to left and behind the town stretched—the embodiment of usefulness, respectability—a triumph of ugliness and energy.



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